## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 15 January 2004 (15.01.2004)

## (10) International Publication Number WO 2004/005026 A1

(51) International Patent Classification7: 27/32, C08G 69/02, 69/26

B32B 27/34.

(21) International Application Number:

PCT/NL2003/000495

(22) International Filing Date:

4 July 2003 (04.07.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1021031

9 July 2002 (09.07.2002) NL

(71) Applicant (for all designated States except US): DSM IP ASSETS B.V. [NL/NL]; Het Overloon 1, NL-6411 TE Heerlen (NL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): KROON DE, Jan [NL/NL]; In de Neerakker 1A, NL-6093 JH Heythuysen (NL). BRINK, Ted [NL/NL]; Charles Voscour 4, NL-6211 XR Maastricht (NL).

(74) Agent: MOOIJ, Johannes, Jacobus; DSM Intellectual Property, P.O. Box 9, NL-6160 MA Geleen (NL).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESS FOR APPLYING A LAYER OF BRANCHED POLYAMIDE TO A SUBSTRATE

(57) Abstract: Process for manufacturing a laminate, which at least comprises the application of a layer of polyamide to a substrate, preferably by means of extrusion coating, with as polyamide mainly branched polyamide being used that is at least composed of units derived from: a) AB monomers, which are understood to mean a monomer that has both a carboxylic acid group (A) and an amine group (B); b) at least one compound I, being a carboxylic acid (A<sub>v</sub>) with functionality  $v \ge 2$  or an amine (B<sub>w</sub>) with functionality  $w \ge 1$  $\overline{2}$ ; c) at least one compound II, being a carboxylic acid  $(A_v)$  with functionality  $v \ge 3$  or an amine  $(B_w)$  with functionality  $w \ge 3$ , with compound II being a carboxylic acid if compound I is an amine or with compound II being an amine if compound I is a carboxylic acid, in specified quantities. The substrate is preferably (metallized) paper or paperboard so that a laminate is formed which is very suitable for manufacturing packagings for foodstuffs.